

(4) A spray, with this formula:—

Orthoform	...	...	...	gr. v.
Sp. vini rect.	...	...	...	ʒ 50
Aquæ	...	...	...	ʒ 50

This is perhaps the best form in which to administer orthoform for nasal and laryngeal ulceration. The spirit evaporates shortly after contact with the parts, leaving the precipitated powder evenly distributed over the affected area.

(5) An ointment (10 per cent.) made with any good ointment basis.

(6) An aqueous solution (10 per cent.) of the hydrochloride as a paint (*Brit. Med. Journ.*, Feb. 5, 1898).

This commendation of the new drug was generally endorsed by the London Laryngological Society, although some members had been disappointed in the results obtained.

Another promising addition is **holocaine**, a salt which occurs in small, white, needle-shaped crystals, which are soluble to the extent of 5 per cent. in cold water. Coosemans maintains that in holocaine we have an ideal local anæsthetic, and one which surpasses cocaine in the following respects:—1. Holocaine is cheap—about quarter the price of cocaine; moreover, 1 per cent. solution is equal to 10 or 20 per cent. solution of cocaine solution. 2. It causes no pricking. 3. It is much less bitter to the taste than cocaine. 4. It produces no nausea, no sensation of tightness or of foreign body in the throat. It produces none of that cerebral excitation which is often responsible for cocaine mania. 5. It causes no vascular contraction. 6. It never induces symptoms of general intoxication. 7. The solutions are stable and antiseptic (*Rev. Hebd. de Laryng.*, Dec. 11, 1897).

Nosophen is recommended by Scott Bishop as an excellent local antiseptic in diseases of the nose and throat. It has no odour or irritating qualities, and is antiseptic and healing. Its colour is greyish-yellow, and it contains nearly 62 per cent. of iodine in combination. It is not decomposed by heat up to 220°C., and is not soluble in water. However, it is readily soluble in alkalies, and when thrown on surfaces that have just been treated with alkaline sprays it is converted into the sodium salt, antinosine (*The Laryngoscope*, Jan., 1898).

Arsenic has been strongly recommended by Costiniu in malignant tumours of the larynx, tongue, and nose. After application of cocaine, he paints on a 1 in 150 solution of arsenious acid, and in one case, which had been demonstrated by the microscope to be epithelioma, he obtained a definite cure. There were no symptoms of intoxication, the pain produced was

very slight, and the acid appears to act only on diseased tissues (*Rev. Hebd. de Laryng.*, No. 38, 1898).

CONNECTION WITH REMOTE SYMPTOMS.

Dr. W. F. Chappell (*Laryngoscope*, March, 1898) calls attention to the common dependence of throat and nose affections on the state of the general system. Atrophic rhinitis, enchondroma, perforation of the nasal septum, recurring epistaxis, etc., are often secondary to contagious affections; marked redness of the mucous membrane and great pain and stiffness of surrounding tissues, to latent gout or rheumatism; primary syphilitic lesions of the upper air-passages have been mistaken for diphtheria, and congenital syphilitic ulcerations of the nasal septum, soft palate, and larynx for tuberculosis and malignant disease. Acute rhinitis and laryngitis often spread downward to the trachea and bronchi, and conversely, though laryngeal tuberculosis is nearly always secondary to that of the chest. Gastro-intestinal disorders play their part by causing venous congestion, especially round the base of the tongue, with glandular swelling there and on the posterior pharyngeal wall. Lithæmia is also responsible for much glandular tissue increase. Hysteria is a factor in the production of aphonia, œsophagismus, and dysphagia; nasal headaches are often due to improper drainage or disease of the accessory sinuses. In all these conditions, full scope must be given to internal medication, and topical treatment not allowed to usurp exclusive dominion.

Certain forms of headache are undoubtedly of nasal origin, so that the method of treatment suggested by Vansant is worthy of consideration. He forcibly syringes the nasal accessory sinuses with a stream of hot dry air (medicated in some instances) or nitrous oxide gas. The relief was complete and permanent after one or two treatments in some cases, and was so quick as to be in some instances "positively startling." In most of the cases he records there was nasal obstruction present in some form or another. The forcible syringing in many instances caused a free serous discharge from the nostrils, which did not last very long. His explanation is that the headache results from the obstruction to the outlets of the sinuses, and consequent retention of fluids and rarefaction of the confined air. The forcible syringing permits the escape of the retained gases or fluids, and restores the equilibrium of the atmospheric pressure. Once freed, the outlets do not easily become obstructed again, hence the good results of treatment are lasting. No description of the technique is given (*Philadelph. Med. Jour.*, May 7, 1898).

The connection between **nasal** and **ocular diseases** have again been insisted on by **Stiel**. The relationships are essentially of three kinds. The first consists of reflex ocular disturbances, lachrymation, photophobia, scotoma, ophthalmic migraine, and especially asthenopia. The second consists of the connection between the nose and the eye through the tear duct. Inflammation in the nose, hypertrophy of the inferior turbinal and ulcerative processes, cause swelling of the cavernous tissue of the lachrymal duct, with stenosis, and as a result stagnation of tears in the tear duct. Bacteria increase and cause inflammation of the walls of the tear duct, producing dacryostenosis and dacryocystitis. As a result, preliminary treatment of the nose should precede probing and washing out of the tear duct. The third relationship consists of the proximity of the nose and eye. The orbit is surrounded by the accessory cavities, so that inflammation of these latter can easily spread to the eye. Every gradation, from simple collateral hyperæmia to orbital abscess and cellulitis, has been observed. Orbital abscess is usually secondary to disease of the antra (*Münch. med. Wochen.*, Jan. 25, 1898).

THE NOSE.

The possible dangers of the **nasal douche**, and its liability to abuse, have been insisted on by **Lichtwitz**. Amongst the dangers are disturbance to the sense of smell, due to the alteration produced by the medicated solutions on the epithelium and nerve endings; the occurrence of pains in the head, which are sometimes explained by the entrance of lotion into the accessory sinuses; and the entrance of liquid into the middle ear, sometimes followed by suppurative otitis. The danger of abuse resides in the fact that in prescribing it for a patient we frequently temporarily relieve him, while he not only remains uncured of his original complaint but to it are added the risks he runs from the use of the nasal douche. For **Lichtwitz** holds that genuine ozæna is the only affection in which the use of the douche is justified; in other nasal affections it is insufficient, useless, or even dangerous. He entirely disapproves of it after operations on the nose (removal of polypi, etc.), or naso-pharynx (removal of adenoids) (*Sem. Med.*, 30th October, 1897). In this latter opinion he is joined by many observers, and although the nasal douche has its uses I have no doubt that it is most recklessly prescribed. Even if its dangers have been exaggerated, the abuse it leads to is considerable, since it lulls the patient into a false sense of comfort that something is being done for him. I have repeatedly pointed out that when there is no pus formation in the nose, its

mucous membrane serves for its own cleansing and antiseptic purposes. When lotions are absolutely called for, they should preferably be administered in sprays or with syringes.

With regard to **nasal sprays**, some useful suggestions are made by **Scott Bishop**. For softening, dissolving and washing out discharges and crusts that cling to the mucous membrane he employs the following alkaline formula: R acidi borici, sodii bicarbonatis, sodii chloridi āā ʒij, glycerine ʒiij, aquæ rosæ ʒiv, aquæ q.s. ad Oj. For a permanent medicinal effect on the mucous membrane sprays should be prescribed with a purified petroleum oil, and it is better that this oil should always be rendered antiseptic and disinfectant. These requirements are admirably complied with in Benzoinol. The addition of the balsamic resin, benzoinum, to the oil adds the germicidal property of an acid, besides the slightly stimulating effect of benzoin to the emollient and protective qualities of the oil. This affords an ideal base for various therapeutical combinations for medicating the respiratory mucous membrane. The simple benzoinol may be used in an atomiser, or with a 3 per cent. addition of camphor-menthol. For the sore throat associated with changes of weather, and possibly connected with the rheumatic or gouty diathesis, the following formula is well adapted: R salol, 3 per cent.; oil of gualtheria, 4 per cent.; thymol, 3 per cent.; benzoinol, 90 per cent.

In tuberculosis of the nose and throat the atomiser puts some power of local self-treatment within the reach of the sufferer. In the pre-ulcerative stage the following formula is indicated: R aristol, 10 per cent.; menthol, 3 per cent.; benzoinol, 87 per cent. After ulcers have formed and dysphagia is complained of, the following can be advantageously employed by the patient: R creosote, 4 per cent.; carbolic acid, 3 per cent.; oil of tar, 3 per cent.; oil of wintergreen, 4 per cent.; benzoinol, 86 per cent. (*The Laryngoscope*, Feb., 1898.)

Suprarenal substance in hay fever.—**Solomon Solis-Cohen** (*Philadelphia Med. Journ.*, August 13, 1898), who for many years has suffered from hay fever, last summer tried suprarenal substance, abandoning all other measures, so as to give the remedy a fair trial. Except that he soon found it necessary to resume the wearing of dark glasses when driving in the sun, the treatment was, he says, entirely successful in controlling symptoms. After a time, having discontinued it from carelessness, the symptoms returned in full force. He then experimented as to the effect of taking or omitting the medicine, and found that after taking it he was comfortable for a certain number of hours, and that intermitting it for longer periods or omitting it altogether for

a day would cause a return of greater or less distress. At first he used a glycerine extract freshly prepared from carefully selected adrenals of sheep. In a vehicle of simple elixir (fifteen minims to a teaspoonful) it was not unpleasant. This dose three times daily was at first sufficient; later it became necessary to increase either the dose or the frequency. A larger dose caused a suspicion of nausea. Tabloids prepared by Burroughs & Wellcome were therefore substituted. One tabloid, representing 5 gr. of suprarenal substance, was allowed to dissolve in the mouth (the effect seeming to be better when the remedy was administered in this way, probably owing to direct absorption) every second, third, or fourth hour, according to effect. The average amount taken was five tabloids daily, the last one being taken at bedtime, and ensuring "a sneezeless coryzaless night." Sometimes a single tabloid was not sufficient, and two would be taken at a dose, that is, within a few minutes. If coryza or sneezing had begun, it would cease within fifteen minutes after taking the tabloid. The action of the suprarenal substance is, the author points out, to raise blood pressure by increasing the vascular tone; and this action may be local as well as general. To this effect in bringing about contraction of the vessels of the nasal mucous membrane he attributes the relief experienced. (*Epitome, Brit. Med. Journ.*, Oct. 15, 1898.)

Epistaxis is, as a rule, one of the very simplest nasal affections to cure. To the rhinologist the proper treatment is so well established that he has ceased to look about for new hæmostatics. The large majority of these cases, however, occur in the practice of the family physician, and one may therefore be excused for referring to the generally adopted method. **Dr. Le Marc Hadour** writes that the bleeding point, whether originating spontaneously or from trauma, is nearly always the same. This is on the cartilaginous septum, a little above and behind the nasal spine. There is a choice of three methods of treatment: expectant, medicinal applications, or radical treatment. The first applies to the slightest forms. The second embraces direct pressure, and applications of solutions of antipyrin, cocaine, and peroxide of hydrogen. By the radical cure is understood cauterisation with the galvano-cautery, nitrate of silver, or chromic acid. The author does not employ the galvano-cautery, which is difficult to manipulate in this condition; and he does not make use of nitrate of silver, as the scar it leaves is soft and superficial. He prefers chromic acid fused on the end of a probe; it rapidly arrests the hæmorrhage and seals up the vessels from which it proceeded. (*Rev. Int. de Méd. et de Chir.*, No. 12, 1898.)

E. B. Gleason (*Laryngoscope*, Mar., 1898) describes two **methods of controlling nasal hæmorrhage**, which he has practised successfully, the object being to occlude the posterior naris without the use of Bellocq's snare. In the first he takes a long slip of muslin, $18 \times 1\frac{1}{2}$ in. This is soaked in cosmolin or albolin and folded about three inches from one end over a probe, and pushed through the nostril into the posterior naris—the short end next the septum. The long end is again folded near the ala and pushed into the sac just formed, and the packing deeply repeated until the bleeding cavity is filled. When the gauze requires to be removed gentle traction upon the free end will gradually draw out fold after fold without producing irritation.

The other method is by taking a large, loose piece of absorbent cotton-wool, soaking it in a fifteen-volume solution of peroxide of hydrogen and pressing it through the inferior meatus to the posterior naris, as in the first method. If necessary, smaller pledgets of cotton, dipped in the peroxide, could be packed in front of the larger piece. The packing in either case should not be removed inside of twenty-four hours, and then, if necessary, removed.

It is well known that **plugging the nostrils** exposes the patient to the risk of otitis media, and **Saint-Hilaire** has pointed out that this procedure may also be the cause of empyema in the maxillary antrum. In both the cases which he records the nasal plug had been left *in situ* for two days—a quite uncalled-for period. No nasal plug should be left in place for more than twelve hours, or twenty-four at the utmost, without being changed. But, in fact, it is very rarely indeed that plugging the nose is ever required. The bleeding point is generally anteriorly, and can easily be detected and sealed with chromic acid, or a touch of the galvano-cautery. It is also remarkable how many cases of epistaxis can be arrested by simply closing the nares with the finger and thumb and allowing a blood-clot to form. I myself have never seen Bellocq's sound employed, except in the class-room or examination hall! (*Archiv. Internat. de Laryng.*, No. 2, 1898.)

Deviation of the septum.—While spurs of the septum causing symptoms can be very satisfactorily dealt with, it must be confessed that the treatment of large deviations leaves much to be desired. The difficulty is, in such cases, that the prominent part of the septum cannot be removed without opening through into the concavity on the other side, and so causing a perforation. To avoid this, **Escat** of Toulouse, has suggested an ingenious plan for saving the mucous membrane on one side of the septum, sufficient to furnish a membranous septum which serves both for

physiological and æsthetic purposes as well as a cartilaginous one. This is done by means of a submucous injection of sterilised water beneath the mucous surface on the concavity of the deviation (hydrotomy). The mucous membrane by this means is raised from its cartilaginous base, so that when the prominent part of

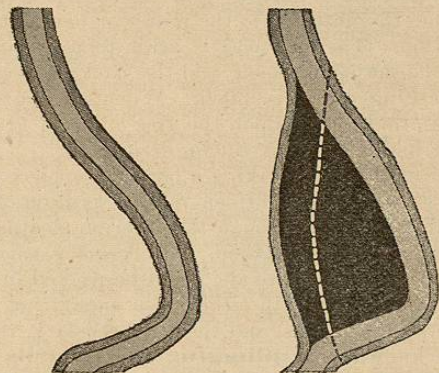


Fig. 1.—Escat's plan for treating deviation of the septum.*

the deviation in the other nostril, *i.e.* the convexity, is removed, the mucous membrane on the right side is left intact. (*Archiv. Internat. de Laryng.*, No. 4, 1898.)

Nasal synechia.—The most practical method of removing a synechia will depend upon its location, and the degree to which the parts are united. Where the tissues are joined simply by a fibrous band, the pressure of a probe is generally sufficient to remedy this condition; but where the synechia is more extensive a condition presents itself which is not very difficult to correct surgically, but in which the probability of a recurrence is very great. Plugging the nose with iodoform gauze, after the separation has been made, is a method extremely painful and disagreeable to the patient. **Scheppegrell** cuts through the synechia in the following manner:—A fine celluloid probe is bent at a short distance from its extremity, and passed beneath the adhesion. The curved part which will then appear above the fleshy bridge is caught with alligator forceps and brought out above the band. To this a silk thread and then a piece of piano wire are attached, so that when the celluloid tube is withdrawn the wire circumvents the synechia. The wire is attached to any of the usual snare-handles, and the adhesion is slowly cut through. A very thin,

* For the loan of this *cliché* we are indebted to M. Escat of Toulouse.

white sheet of celluloid is then cut to such a size and form that its lower edge will rest on the floor of the nostril, its upper edge reaching above the synechia, and its anterior edge very near the anterior orifice of the nose, so that, in blowing or sneezing, the celluloid will always separate the raw surfaces. The nostril requires no further treatment; all that is necessary is that the patient should use an alkaline and antiseptic nose-wash two or three times a day. (*The Laryngoscope*, Jan., 1898.)

The **adhesions** which take place between the turbinals and the septum after cauterisation of the nose, especially after the use of the galvano-cautery, are so troublesome that in many cases it is most desirable to take every precaution to avoid them. **Lavrand** recommends the use of chromic acid as an intra-nasal caustic, as being free from reaction and therefore not nearly so apt to produce these troublesome adhesions. (*Bull. Soc. Franç. d'Otolog.*, 1898.)

The following is **R. Lake's** simple and effective method of coating a probe-tip with **chromic acid**. A crystal or two of the acid are picked up on the end of the probe, the probe is now held in the flame of a spirit lamp, so that about half an inch of the end which supports the acid projects beyond the flame. The crystals soon melt, forming a dark brown fluid. When the crystals are entirely melted by the heat, the probe is removed from the flame. It is then rotated until the tip is completely covered, and allowed to cool. The end will now be seen completely sheathed by a pink coating of the acid. One avoids the spluttering and annoyance caused by thrusting the crystals into the flame, and at the same time obtains a far more satisfactory result. (*Journal of Laryng.*, Nov., 1898.)

In **tertiary syphilis** of the nose and throat **StClair Thomson** lays stress on the desirability of treatment by inunction of mercury. He points out the disastrous results which may occur—saddle-back nose, stenoses of the pharynx and larynx, etc.—if tertiary symptoms in this region are not quickly recognised and actively combated. In the nose it is always a grave symptom, as it may be the forerunner of deeper manifestations—especially in the brain. The teeth and gums should be put into as healthy a condition as possible before the treatment is inaugurated. A chlorate of potash mouth-wash is prescribed. Small doses of iodide with aromatic spirit of ammonia and bitters, are given on an empty stomach. Then 20 to 60 grains of ung. hydrargyri are rubbed in nightly, the site of inunction being changed every evening in the week. The ointment should be freshly

prepared. At first the effects must be carefully supervised. The duration of this treatment will vary according to the case, but generally 30 to 40 rubbings are required. With the disappearance of the symptoms the "chronic intermittent" treatment should be pursued. The local treatment consists in cleanliness and antiseptics; the local use of mercurial lotions; the judicious use of escharotics, such as the acid nitrate of mercury in the strength of 1 to 8; and such surgical measures as the curette and the knife. (*The Laryngoscope*, Jan., 1898.)

These views are thoroughly endorsed by Lieven of Aix-la-Chapelle, but he points out that to be on the safe side it is better in many cases to combine the administration of the iodides with mercurial treatment. To avoid stomatitis the patient is directed to cleanse his mouth with the following tooth powder after each meal: ℞ salol 4.0 grms., resorcin 3.0, pulv. irid. flor. 40.0, calc. carbon. 8.0, carmin. 0.3, ol. menth. pip. guttæ 10. The mouth is rinsed out with the following mouth-wash every half-hour or so: ℞ liquor alumni. acet. 100, aq. flor. aurant. 300, aq. dest. 800. (*The Laryngoscope*, May, 1898.)

Vacher insists on the advantages of post-nasal irrigations of a weak mercurial solution employed regularly and carefully. If used in considerable quantity and every two hours they rapidly cleanse the surfaces, check ulceration, and promote the effect of the general treatment, which should be kept up for a considerable time. As lotion he employs a 1 in 20,000 solution of salicylate of mercury obtained by double decomposition of bichloride of mercury and salicylate of soda:

Perchloride of mercury	...	...	...	1 gr
Salicylate of soda	...	...	...	2 gr
Boiled water...	...	...	...	1,000 gr

This solution contains a little chloride of sodium (*Annal. des Mal. de l'Oreille*, No. 7, 1898.)

Ozæna.—Last year I referred fully to the employment of diphtheritic antitoxin in this disease. More than two years have passed since the treatment was first recommended by Belfanti and Della Vedova, and latterly little has been heard in its favour. Holger Mygind, however, has given it a thorough trial in ten cases of genuine ozæna, and comes to the conclusion that in this disease subcutaneous injections of antidiphtheritic serum have an immediate and very marked effect upon the mucous membrane of the nose. Indeed, he thinks it the most effective treatment hitherto known. He considers that the theory that ozæna is caused by an attenuated form of the diphtheria bacillus is too weak to be adopted as a basis, and indeed, he has obtained results which seem

as good as those mentioned by simply treating ozæna patients with injections of normal horse serum. (*Jour. of Laryn.*, Aug. 1898). The subject requires further research, and in the meantime we must be content with ordinary alleviative treatment.

Moure thinks the use of diphtheria serum rests on an insecure basis, and is sceptical of the results obtained by electrolysis. He recommends that the nasal fossæ be cleansed and then massaged with probes coated with cotton-wool, and dipped in the following:—

Iodine	...	...	...	...	1.0-2.5
Potassium iodide	...	...	...	...	0.2-0.3
Trichloroacetic acid	...	...	...	...	0.15
Glycerine	...	...	...	...	60.0

or

Menthol	...	...	...	...	1.0-2.0
Eucalyptus	...	...	...	...	0.1
Ol. vaselini	...	...	...	...	60.0

The secretion is then removed with a syringe, and powder containing 5 to 25 per cent. of powdered silver nitrate is applied. With this treatment improvement is obtained in a large majority of cases, and a complete cure in some. (*Deut. med. Woch.*, 7 April, 1898.)

It is rare in Great Britain for *larvæ* to be met with in the nasal chambers, but should they be detected, or even suspected, it is well to bear in mind that they are easily destroyed by oil—either olive oil or liquid vaseline—which, of course, is quite innocuous to the human tissues. Respiration in insects is carried on by means of an intricate system of tubes (pulmonary trachea), which open by pores (spiracles or stigmata) in the sides of the body. These are blocked by the free use of oil, thus causing suffocation. (*Scheppegezell: The Laryngoscope*, Feb., 1898.) This application of oil is a ready method of terminating the lives of wasps and other summer insect pests.

Acute suppuration in the accessory sinuses of the nose is probably not uncommon. In fact, the ordinary empyema commences in most cases with acute suppuration, and if this were recognised and suitably treated, nearly two-thirds of the cases of chronic suppuration would be avoided. Lermoyez points out that in order to effect this the practitioner should know both how to diagnose, and how to treat acute suppuration. The former is not difficult. The first rule is to bear in mind that only adults are affected. Secondly, the sudden onset of nasal suppuration and facial neuralgia should always raise the suspicion of a sinusitis, and this becomes stronger if the flow of pus is one-sided and fetid.

Such a state of things should at once lead to a thorough examination of the nasal fossæ and their accessory cavities. As to treatment, it should only be operative if there are cerebral symptoms, if there is subcutaneous or orbital inflammation, or if the medicinal treatment has failed after some weeks of trial. This medical, abortive treatment can require no expert skill to carry it out. The object desired is to restore the natural drainage of the affected sinus. For this purpose, the nasal douche or lotion should be avoided, and the following treatment with menthol carried out. Menthol is not toxic, and it is vasoconstrictor; it is analgesic and antiseptic. It is employed as follows: Into a jug, or inhaler, of very hot but not boiling water, a teaspoonful of the following solution is poured:—

R Menthol, crystallised 4 grammes.
Alcohol at 90° 100 „

The vapour is inspired through the nose for five or ten minutes every hour. At the same time the classical treatment for any febrile condition should be carried out—rest in bed, low diet, purgative, etc. The pain may be relieved by antipyrin or phenacetin, and every upper molar which may be suspected of causing the suppuration should be removed at once. (*La Presse Méd.*, Feb. 16, 1898.)

NASO-PHARYNX.

Deaths continue to be reported of patients while undergoing operation for the removal of **naso-pharyngeal adenoids**, and rumour is busy with the reports of others which are not published. Some of these were due to hæmorrhage, and it has been shown by **Brown Kelly** that an abnormal distribution of the internal carotid may account for some of these (*Glasg. Med. Journ.*, Jan., 1898). But the largest number of fatalities are attributed to the anæsthetic employed, and **Hinkie** states that since 1892 he has collected references of no less than 18 deaths attributable to the chloroform administered for the removal of post-nasal growths. In his own fatal case death occurred just at the end of the operation. He suggests that these fatalities may be due to the "habitus lymphaticus" of adenoid patients, *i.e.* a constitutional condition in which there is hypertrophy of the lymphoid tissue throughout the body, frequently associated with dilated heart and narrow aorta. A result of this condition is an increased vulnerability and a particular predisposition to cardiac syncope. (*The Laryngoscope*, July, 1898.) Of course, those who have had large experience with chloroform and have not met with any accident, will maintain that all depends on the method in which

the anæsthetic is administered. Still, as universal skill cannot be assured in chloroform administration, I think it is time that the profession reconsidered the question of the administration of this anæsthetic in the removal of naso-pharyngeal adenoids. There are many who claim to do the operation as thoroughly under the much safer administration of nitrous oxide, and it is strange that bromide of ethyl never appears to have been given much in Great Britain. In Paris it is the almost universal anæsthetic for operations of short duration on the throat.

In the *Boston Med. and Surg. Journ.*, May 19, 1898, **Dr. W. Preble** writes on **secondary hæmorrhage** following the removal of naso-pharyngeal adenoids. He removed vegetations from a girl aged eleven years. The bleeding was not severe. The operation was quite successful and nasal breathing was restored. But on the seventh day a sudden hæmorrhage occurred, and the girl was carried into the house fainting. Under cold syringing the bleeding stopped. It recurred, and was stopped by plugging the posterior nares. On the eighth day a sudden gush of blood came on, and she died before assistance could be rendered. There was no history of hæmophilia. **Dr. Preble** has collected 21 cases of serious primary hæmorrhage after this operation (of which 4 proved fatal), and 5 cases of secondary hæmorrhage. Of the latter, 3 of the patients were French and 2 were Danish. There does not appear to be any case of secondary hæmorrhage recorded in English literature. (*Lancet*, 1898.)

THE PHARYNX.

The pathology of the **lingual tonsil** formed the subject of one of the formal debates at the 1897 meeting of the Société Française d'Otologie, &c.* As regards treatment, **Escat** said that catarrh should be treated with antiseptic gargles or sprays of carbolic, thymol, phenosalyl, lysol, resorcin, sublimate, or salol; dysphagia and pain being met with menthol, cocaine, or, better still, holocaine of 1 per cent. The general treatment of catarrh and the treatment required for acute inflammation are the same as that indicated when the palatine tonsils are attacked. In brief, the lingual tonsils are subject to the same affections as the palatine, and require treatment on precisely the same lines. **Lermoyez** pointed out that we should be very careful in attributing subjective throat symptoms to some slight change in the lingual tonsils; for not only is it remarkable that these tonsils are frequently enlarged without causing any symptoms,

* *Bullet.*, 1898.

but in many cases where relief from subjective symptoms appears to have followed some application to them, it is striking that no change has been effected in the size of the gland, and yet the psychological effect of the treatment has modified the neurotic sensibility.

Various remedies are constantly being recommended for **peritonsillitis**, although considerable reliance may be placed on some of the preparations of salicine, with brisk purgation, and early puncture when pus has formed. **K. W. Baldwin** claims that if a case is seen early the following treatment will abort an attack, and that in a later stage it will prevent the formation of pus and the involvement of the opposite side. After thorough cleansing of the throat and nose with an alkaline spray, equal parts of spirit of turpentine and compound spirit of lavender are painted on to the inflamed tissues as thoroughly as possible. The taste of the turpentine may be disguised by the addition of a few drops of the oil of anise or gualtheria. It is painted on every three hours. A mercurial followed by a saline laxative is usually indicated. Codein is used to control the pain. (*Journ. Amer. Med. Assoc.*, Mar. 12, 1898.)

Lupus of the throat is not a very uncommon affection, and in its treatment **Lambert Lack's** warm commendation of the internal use of arsenic deserves every attention. In his experience nothing has produced such excellent results as the internal administration of Fowler's solution, increasing the dose as tolerance is established, so that in adults he has given as much as twenty minims three times a day. For the cure of lupus of the pharynx and larynx other means of treatment appear to him to be superfluous. It is curious to note that arsenic was not found by **Lack** to be nearly so efficient in intranasal lupus, and in such cases he usually employs local treatment in addition. In those of his cases where there was also lupus of the skin, the latter was unaffected by the arsenic. It also appears to be without effect in chronic tuberculosis of the pharynx and larynx; in fact, when pushed, it seems decidedly harmful. (*Treatment*, April 28, 1898.)

THE LARYNX.

Laryngeal tuberculosis.—**Donelan** recommends that the larynx be thoroughly cleansed by antiseptic sprays, and by the use of a mixture of guaiacol and paroleine. The larynx is then cocainised, and under the guidance of the laryngeal mirror an injection of one minim of pure guaiacol is made into the affected part of the larynx with a specially-designed laryngeal syringe. (*Lancet*, Dec. 25, 1897.) A similar method of submucous

injection had previously been recommended by **Chappell** and **Watson Williams**.

The dysphagia of laryngeal tuberculosis frequently calls for alleviation. **Eugene S. Yonge** divides the treatment of this symptom into two parts—that by drugs and that by methods. There is no ideal drug which is suitable in every case, but the following are generally effective:—Cocaine, antipyrin, eucaïne,

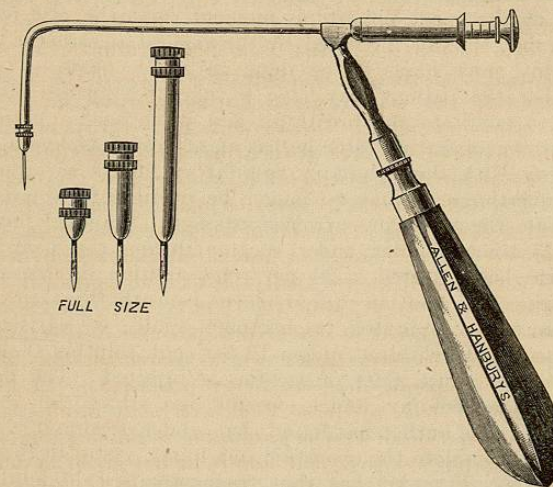


Fig. 2.—Donelan's laryngeal syringe for submucous injection.

orthoform, carbolic acid, guaiacol, ice, morphia, and paramonochlorphenol. In the presence of ulceration any of the above remedies may be applied, but when loss of tissue is absent, only cocaine, antipyrin, eucaïne, carbolic acid, and ice are available. In extensive ulceration, morphia and iodoform give modified relief for several hours. Orthoform (*vide p. 397*), when applied to a cleansed laryngeal ulcer, produces, in the great majority of cases, complete relief, beginning in a few minutes and lasting several hours. Of methods other than drugs there may be considered the prone position, recommended by **Wolfenden**, to be adopted in taking nourishment; the imbibition of semi-solids; the œsophageal tube; rectal feeding; and, lastly, surgical measures. The author has had no experience of curettement, etc., for the relief of painful deglutition, because he has not yet encountered a

case of dysphagia, uncontrollable by other measures, in advanced phthisis, in which the state of the lungs and the general condition of the patient were such as to permit the consideration that surgical interference would be successful, or even justifiable. (*Journ. of Laryng.*, Sept., 1898)

Tracheotomy under local anæsthesia.—B. Fraenkel (*Berl. klin. Woch.*, June 6, 1898) draws attention to the fact that in chronic stenosis of the larynx tracheotomy cannot always be done at the most opportune moment, and the risk of the operation may thus be increased by the general anæsthetic. The tracheotomy may have to be done in much haste. It may happen that the patient may have to take up a certain position in order to facilitate the breathing, and when such a patient is placed on the operating table he has an attack of asphyxia. By doing away with the voluntary respiratory efforts as occurs in general anæsthesia, it may no longer be possible for the patient to force air through the narrowed passage. Fraenkel has performed 23 tracheotomies under cocaine during the past three years. He has injected a 20 per cent. solution in two places or a 10 per cent. solution in four places beneath the skin of the part. In a few minutes tracheotomy could be carried out without pain. In children, only a 10 per cent. solution should be used. In the adult, 0.04 of cocaine is injected. The patient fears the tracheotomy under cocaine less than the general anæsthesia. The author has found that under cocaine it is never necessary to complete the operation in a hurry owing to threatening asphyxia. Fraenkel has thus tracheotomised 17 adults: 5 for laryngeal syphilis, 6 for tuberculous laryngitis, 4 for carcinoma, 1 for pachydermia laryngis, and one for stenosis resulting from attempted suicide. In a further 2 cases tracheotomy was done for acute disease. In 4 cases chloroform was used as well as cocaine. After a certain amount of anæsthesia was induced, cocaine was injected, and the tracheotomy performed in partial narcosis.

The advantages of **intra-tracheal injections** have again been advanced by John A. Thompson (*Journal of Laryngology*, 1898, No. 2). He did not recommend them in the acute stage of bronchitis before there was any secretion; they were not tolerated and only excited cough. He had obtained excellent results in pulmonary tuberculosis and chronic bronchitis, and believes that the same results could not be obtained from inhalations. In the inhalation treatment the vapour employed condenses so rapidly that only a small proportion of the remedy can reach the lungs. The superiority

of the method of intra-tracheal injection is due to the comparatively large dose that can be used, and the thorough saturation of the air in the lungs with the vapour. There are many proofs that tracheal injections are speedily absorbed, and they have the advantage of not being changed by the digestive processes, as they are when taken into the stomach. The digestion and appetite are not interfered with. From one to four drachms of fluid are used at a sitting, and there is no necessity to spray the larynx with cocaine beforehand. For further particulars of this method, *vide* Colin Campbell, *Medico-Chi. Trans.*, vol. lxxviii. 1895.

The treatment of chronic cervical lymphadenitis by the introduction of drugs into the crypts of the tonsils.—In the *Boston Medical and Surgical Journal* of May 19, 1898, Dr. J. L. Goodale has described this novel and ingenious method. His observations refer to the glands at the angle of the jaw and not to the occipital, jugular, and submental glands. The difference between the stout, compact epithelium covering the exposed surface of the tonsil and the delicate loose structure lining the crypts leads him to suppose that absorption takes place chiefly through the latter. A number of foreign substances were introduced into the crypts of tonsils destined for excision and the tonsils were removed at varying intervals and examined microscopically. The substances were found to have been absorbed and to have passed into the interfollicular lymph channels. To exclude complicating influences in the cases selected for treatment adenoid hypertrophy was absent and the lymphadenitis was out of proportion to discoverable disease of the tonsil, particularly hypertrophy. In most cases a 10 per cent. aqueous solution of iodine was used. Three or four drops were drawn into a syringe through a canula, which was introduced into a crypt as far as it would go and the fluid was expelled. The injections were repeated every third or fourth day. In most cases a remarkable reduction in the glandular swelling took place. For example, a pale, poorly-nourished girl, aged eight years, had a gland at the right angle of the jaw measuring 2 in. by 1 in. The gland became steadily reduced in size, and in eight weeks measured $\frac{3}{4}$ in. by $\frac{1}{4}$ in. In a few cases apparently suitable for this treatment no improvement resulted; possibly there was some source of infection other than the tonsils. (*Lancet*, Sept. 24, 1898.)

NEW PUBLICATIONS.

“Maladies du Larynx, du Nez, et des Oreilles.” Par André Castex. (Paris: Librairie J. B. Baillièrre et Fils, 19, Rue Hautefeuille. 1899.)

"The Throat and Nose, and their Diseases." By Lennox Browne. Fifth edition. Price 31s. 6d. (London: Baillière, Tindall & Cox. 1899.)

"Diseases of the Upper Respiratory Tract." By P. Watson Williams. Third edition. (Bristol: John Wright & Co. Price 8s. 6d. 1898).

"Nasal Obstruction." By W. J. Walsham. Price 7s. 6d. (London: Baillière, Tindall & Cox, 1898.)

TROPICAL DISEASES.

By PATRICK MANSON, M.D., F.R.C.P., LL.D.,

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Malaria: mosquito theory.

Although we may chronicle no very important advance in the therapeutics of tropical disease during 1898, some important advances in the etiology of malaria, which in the not very distant future may have important practical issues, demand a brief notice.

In the "Year-Book" for 1898 Ross's observations on the malaria parasite in its relation to the mosquito were briefly described. It was pointed out that in the stomach wall of a certain species of mosquito, fed on crescent-containing blood, pigmented cells, which were presumed to be a developmental stage of the malaria parasite, were found. In the *Brit. Med. Journ.*, Feb. 26, 1898, Ross published additional observations which enabled him to state positively that these cells were certainly pathological as regards the insect, and also to convince him that his conjecture that they were malaria parasites was correct.

Since that time Ross has turned his attention to the study of the proteosoma of birds. Proteosoma, which occurs in several species of birds, is an intracorpuseular blood parasite closely allied in appearance, structure, and habit to the malaria parasites of man. By feeding a certain species of mosquito ("grey" mosquito) on sparrows infected with proteosoma, and subsequently dissecting the insects, Ross found that he could, without fail, obtain a crop of pigmented cells in the stomach wall of the mosquito experimented with. These pigmented cells closely resembled the cells he had previously seen in the mosquito above referred to as having been fed on human malarial blood. They were lodged among the muscular fibres forming the outer layer of the stomach wall. On the second day after feeding, the pigmented cells were still very minute (6μ), but day by day they increased in size, until at the end of a week they measured from 30μ to 60μ in diameter. With increase in size the cells in question acquired a capsule of some thickness and showed evidence of structure, some being granular, some being hyaline with the